

Service Manual

AUTO PRODUCTS
CX-E300EN

GRAPHIC EQUALIZER



SPECIFICATIONS*

Type:	Dual graphic equalizer
Power source:	DC 12V (test voltage: 14.4V), negative ground
Current drain:	0.23 A
Input sensitivity:	600 mV
Output voltage:	600 mV
Higher	
harmonics distortion:	0.07%
S/N ratio:	80 dB
Frequency response:	20 ~ 30,000 Hz
Stereo separation:	70 dB (1,000 Hz)
Tone quality adjustment:	50 Hz±12 dB 250 Hz±12 dB 1.8 kHz±12 dB 4 kHz±12 dB 10 kHz±12 dB
Input impedance:	47 kΩ
Dimensions**:	178(W) x 130(D) x 25(H) mm
Weight**:	0.7 kg

FEATURES

- Stereo graphic equalizer with 5-position tone controls.
- DC 12 V, negative ground.
- Equalizer shift switch.
- Fader control.
- Equalizer switch with LED indicator.
- DIN cords connection.

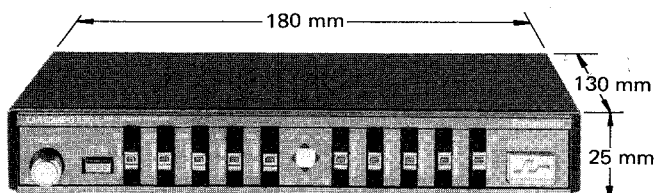
* Specifications subject to change without notice.

** Weight and dimensions shown are approximate.

CONTENTS

	Page
DIMENSIONS	1
OPERATION OF CONTROLS	1
COMPONENT COMBINATION	1
LOCATION OF CONTROLS	2
INSTALLATION INSTRUCTIONS	2
EXPLODED VIEW	3
SCHEMATIC DIAGRAM	4
WIRING DIAGRAM	5
REPLACEMENT PARTS LIST	6 to 11

DIMENSIONS



OPERATION OF CONTROLS

Tone Control

This control is used to adjust the frequencies.

- When playing in a car, the sound of frequencies in the vicinity of 50 Hz is normally attenuated. Adjust the control to suit your listening preference.
- When playing in a car, there is a peak at about 250 Hz in the frequency response. Adjust the control to suit your listening preference.
- Use this control to adjust the tone quality according to the type of music being played.

Equalizer Shift Switch (L/R)

When adjusting the volume levels of the front and rear speakers, set this switch to ON and the left and right speakers to OFF.

- Press the equalizer shift switch. The left and right shift indicators will light. Adjust the L side with the left equalizer knob (5 elements) and the R side with the right equalizer knob (5 elements).
- When the equalizer shift switch is not pressed, the upper and lower shift indicators will light. Adjust the front side with the left equalizer knob (5 elements), and the rear side with the rear equalizer knob (5 elements).

In 1-amplifier 2-speaker system, the front side cannot be adjusted.

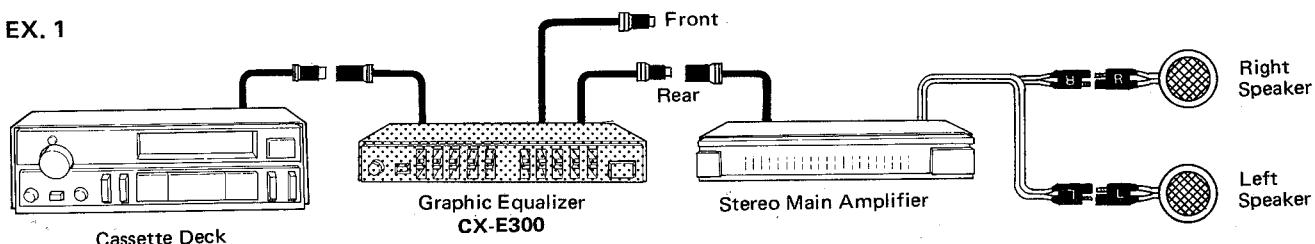
Fader Control

This control is used to adjust the volume levels of the front and rear speakers in 4-speaker system.

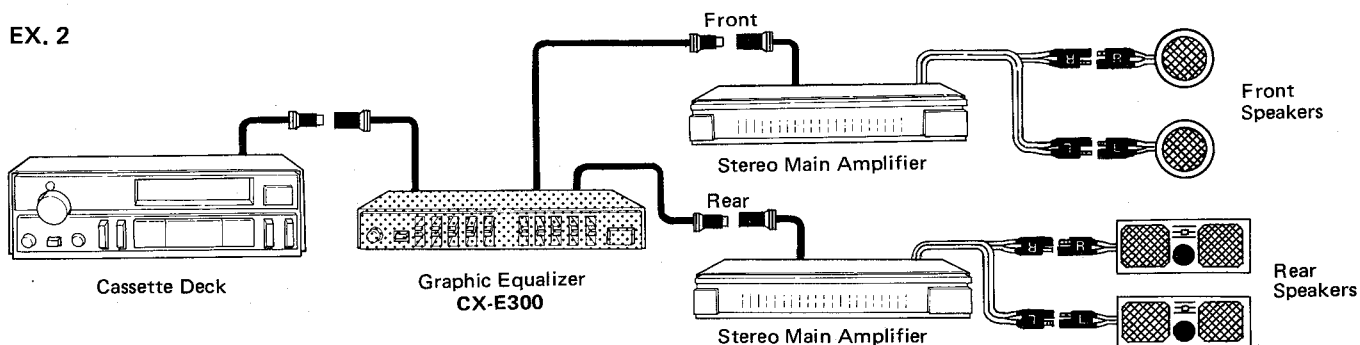
- A left turn of the control increases the volume of the front speakers, and a right turn, the rear speakers.
- In 1-amplifier 2-speaker system this control cannot be used for the speakers installed on the front side.

COMPONENT COMBINATION

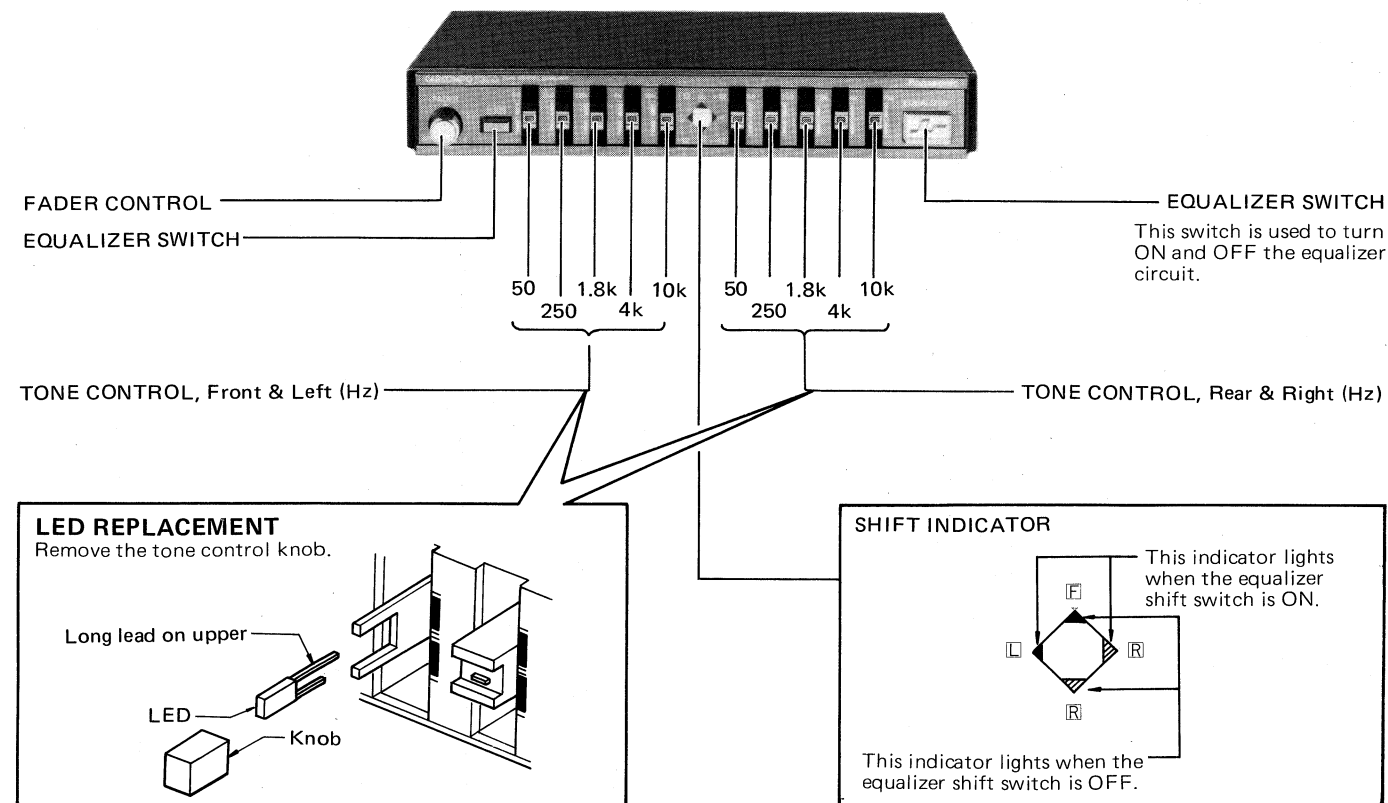
EX. 1



EX. 2

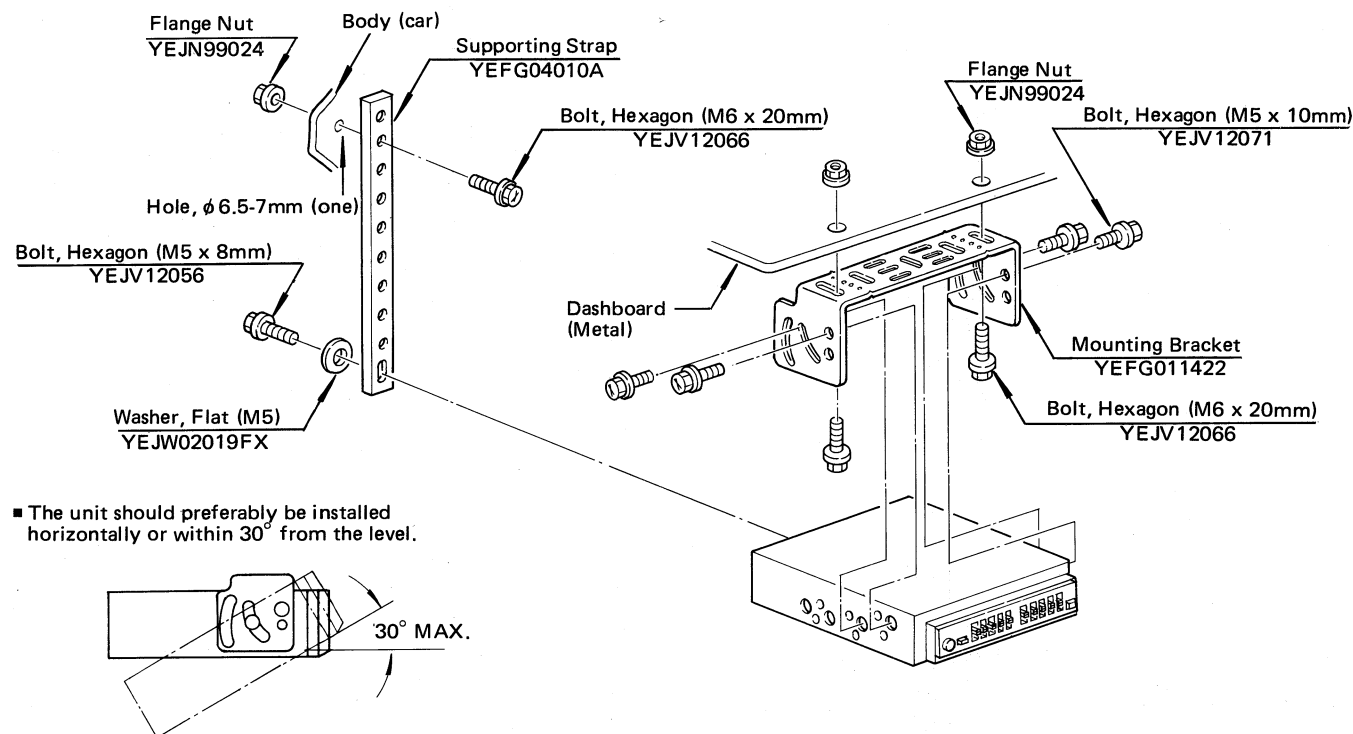


LOCATION OF CONTROLS

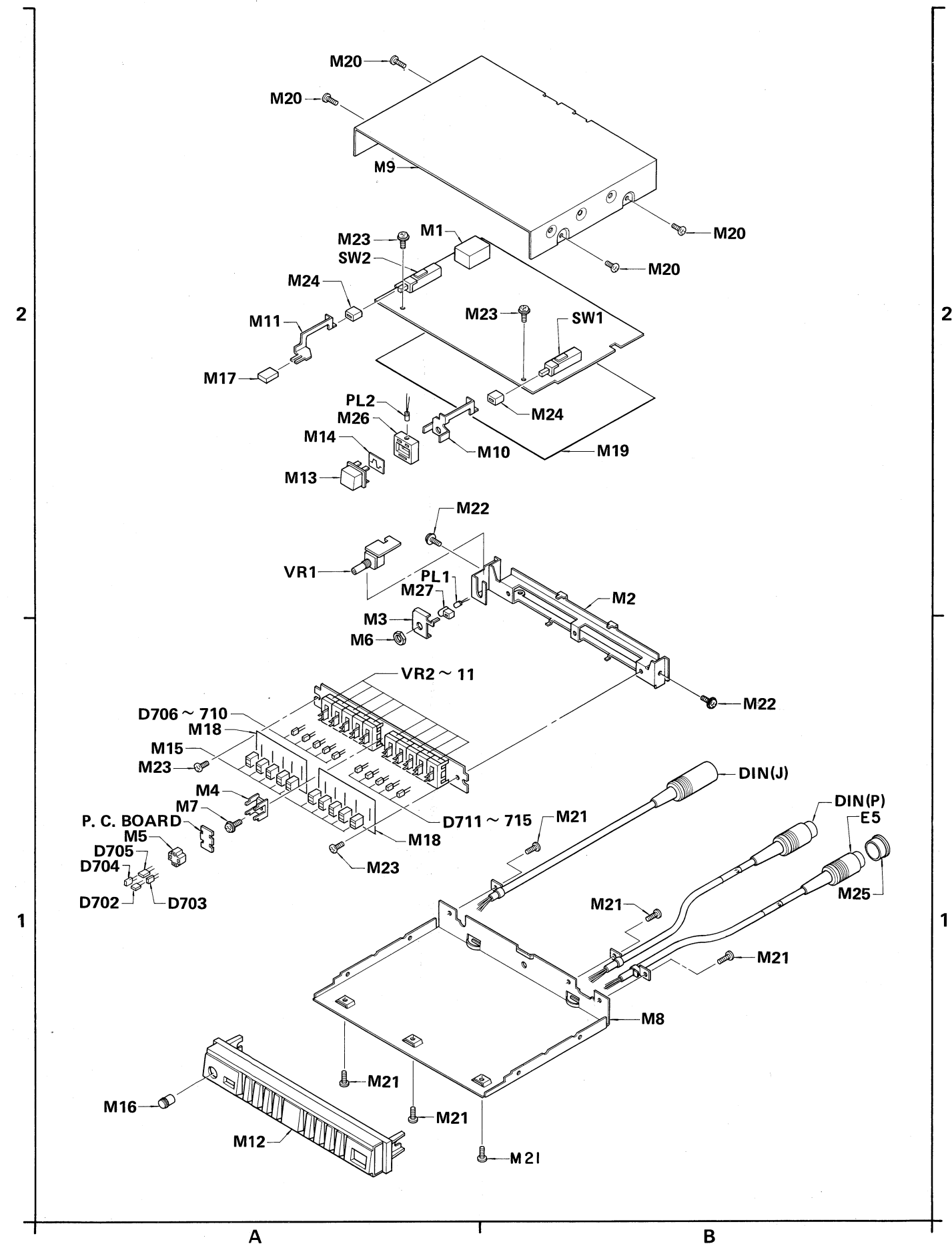


INSTALLATION INSTRUCTIONS

1. Drill two holes (ø 6.5-7mm) for the mounting brackets in the dashboard (metal) and one hole (ø 6.5-7mm) for the supporting strap in the car body.
2. Secure the supporting strap to the car body.
3. Secure the mounting bracket to the dashboard.
4. Fasten the unit to the mounting bracket.
5. Fasten the unit to the supporting strap.

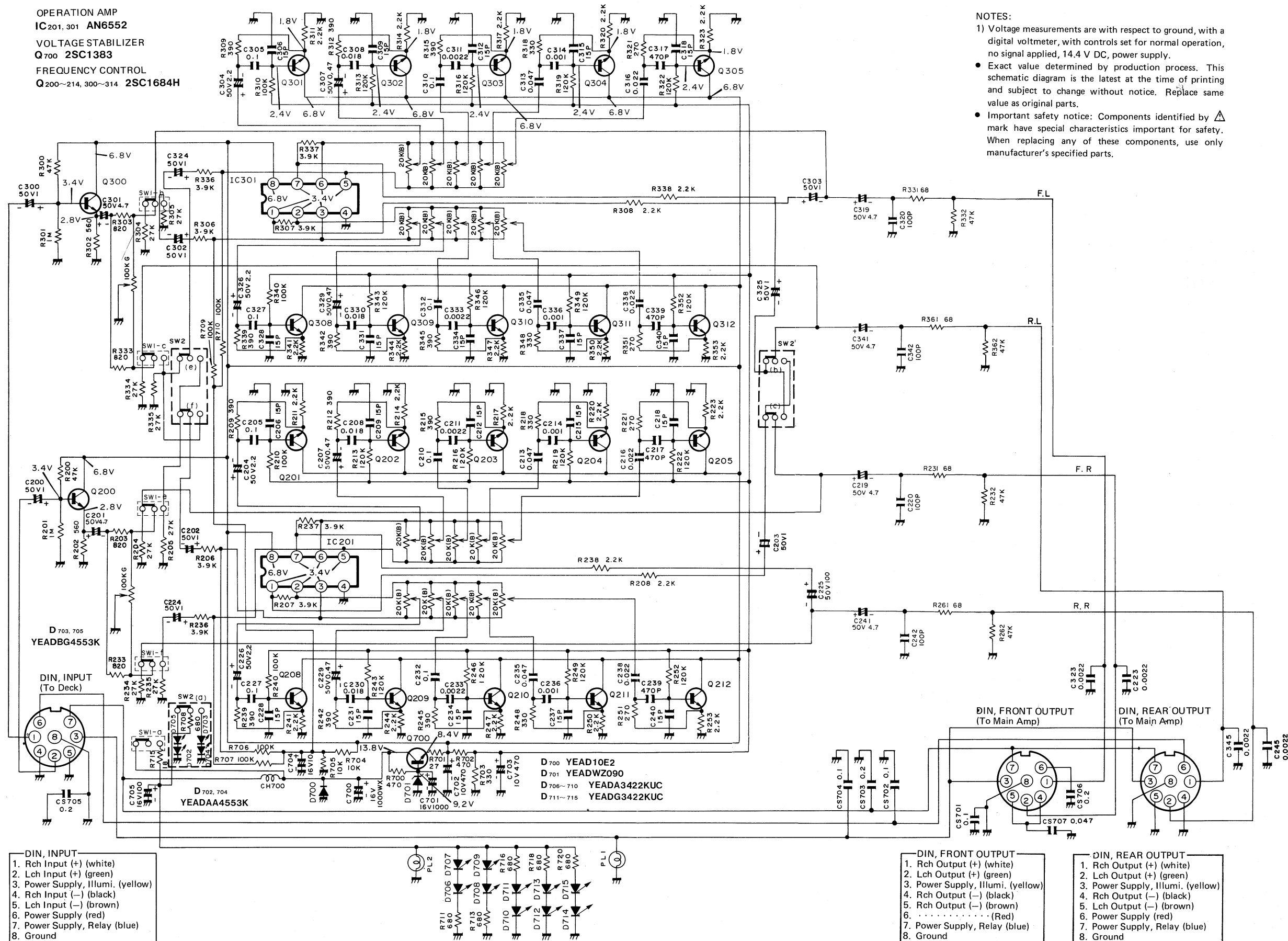


EXPLODED VIEW

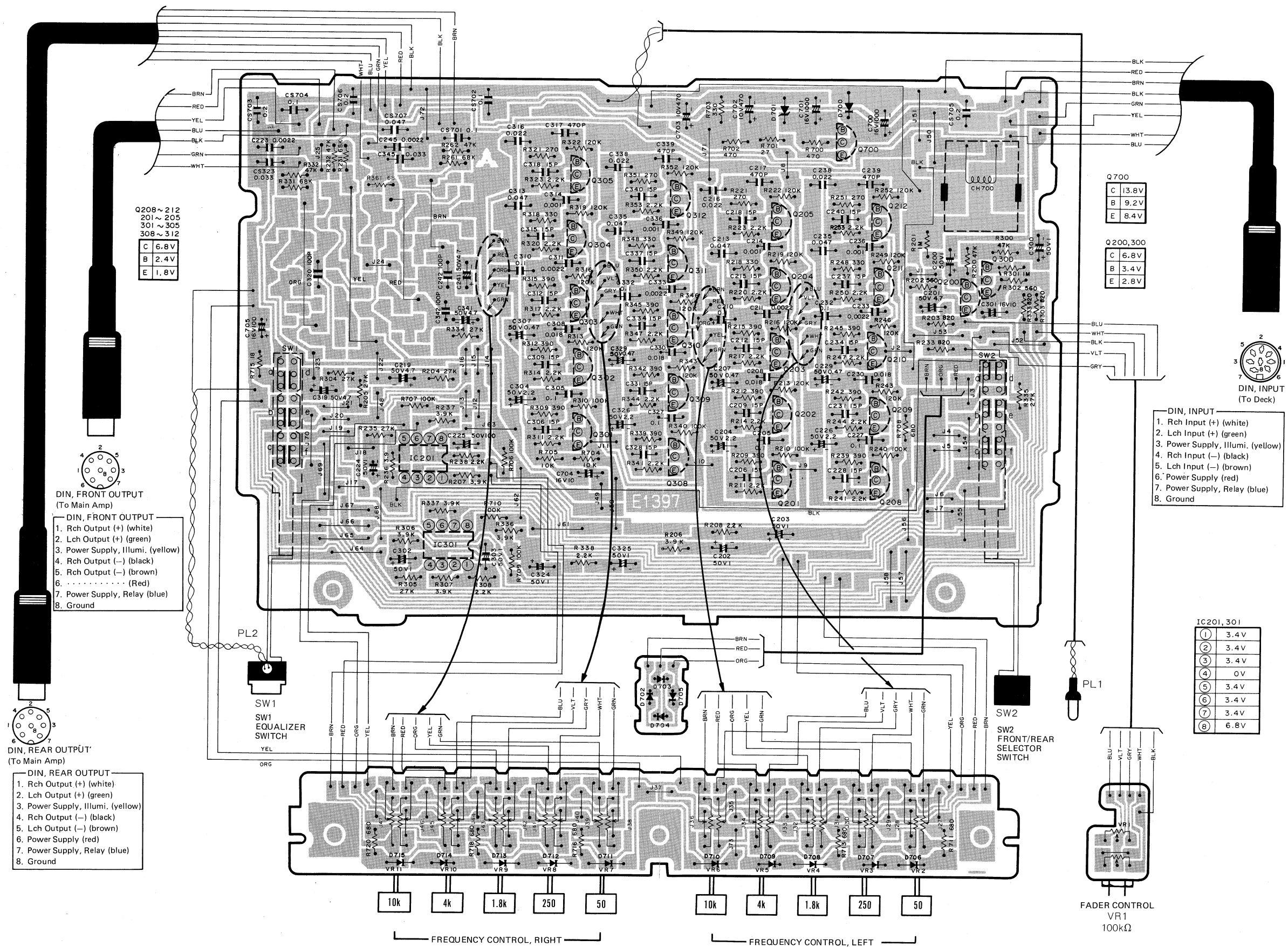


SCHEMATIC DIAGRAM MODEL CX-E300EN

OPERATION AMP
IC201, 301 AN6552
VOLTAGE STABILIZER
Q700 2SC1383
FREQUENCY CONTROL
Q200~214, 300~314 2SC1684H



WIRING DIAGRAM MODEL CX-E300EN



Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks	
R239	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R240	ERDS2TJ104	100k OHM 1/4W ±5% Carbon	1		
R241	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R242	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R243	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R244	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R245	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R246	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R247	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R248	ERDS2TJ331	330 OHM 1/4W ±5% Carbon	1		
R249	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R250	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R251	ERDS2TJ271	270 OHM 1/4W ±5% Carbon	1		
R252	ERDS2TJ124	120 OHM 1/4W ±5% Carbon	1		
R253	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R261	ERDS2TJ680	68 OHM 1/4W ±5% Carbon	1		
R262	ERDS2TJ473	47k OHM 1/4W ±5% Carbon	1		
R300	ERDS2TJ473	47k OHM 1/4W ±5% Carbon	1		
R301	ERDS2TJ105	1M OHM 1/4W ±5% Carbon	1		
R302	ERDS2TJ561	560 OHM 1/4W ±5% Carbon	1		
R303	ERDS2TJ821	820 OHM 1/4W ±5% Carbon	1		
R304	ERDS2TJ273	27k OHM 1/4W ±5% Carbon	1		
R305	ERDS2TJ273	27k OHM 1/4W ±5% Carbon	1		
R306	ERDS2TJ392	3.9k OHM 1/4W ±5% Carbon	1		
R307	ERDS2TJ392	3.9k OHM 1/4W ±5% Carbon	1		
R308	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R309	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R310	ERDS2TJ104	100k OHM 1/4W ±5% Carbon	1		
R311	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R312	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R313	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R314	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R315	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R316	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R317	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R318	ERDS2TJ331	330 OHM 1/4W ±5% Carbon	1		
R319	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R320	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R321	ERDS2TJ271	270 OHM 1/4W ±5% Carbon	1		
R322	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R323	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R331	ERDS2TJ680	68 OHM 1/4W ±5% Carbon	1		
R332	ERDS2TJ473	47k OHM 1/4W ±5% Carbon	1		
R333	ERDS2TJ821	820 OHM 1/4W ±5% Carbon	1		
R334	ERDS2TJ273	27k OHM 1/4W ±5% Carbon	1		
R335	ERDS2TJ273	27k OHM 1/4W ±5% Carbon	1		
R336	ERDS2TJ392	3.9k OHM 1/4W ±5% Carbon	1		
R337	ERDS2TJ392	3.9k OHM 1/4W ±5% Carbon	1		
R338	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R339	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R340	ERDS2TJ104	100k OHM 1/4W ±5% Carbon	1		
R341	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R342	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R343	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R344	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R345	ERDS2TJ391	390 OHM 1/4W ±5% Carbon	1		
R346	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R347	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R348	ERDS2TJ331	330 OHM 1/4W ±5% Carbon	1		
R349	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R350	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R351	ERDS2TJ271	270 OHM 1/4W ±5% Carbon	1		
R352	ERDS2TJ124	120k OHM 1/4W ±5% Carbon	1		
R353	ERDS2TJ222	2.2k OHM 1/4W ±5% Carbon	1		
R361	ERDS2TJ680	68 OHM 1/4W ±5% Carbon	1		
R362	ERDS2TJ473	47k OHM 1/4W ±5% Carbon	1		
R700	ERDS2EJ471	470 OHM 1/4W ±5% Carbon	1		
R701	ERDS2TJ270	27 OHM 1/4W ±5% Carbon	1		

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MODEL CX-E300EN

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C234	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C235	YECQX1H473K	0.047 MFD 50WV ±10% Polyester	1	
C236	YECQX1H102K	0.001 MFD 50WV ±10% Polyester	1	
C237	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C238	YECQX1H223K	0.022 MFD 50WV ±10% Polyester	1	
C239	YECQX1H471KB	470 PF 50WV ±10% Ceramic	1	
C240	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C241	ECEA1HS4R7	4.7 MFD 50WV Electrolytic	1	
C242	YECCD1H101KM	100 PF 50WV ±10% Ceramic	1	
C245	YECQX1H222K	0.0022 MFD 50WV ±10% Polyester	1	
C300	ECEA1HS010	1 MFD 50WV Electrolytic	1	
C301	ECEA1HS4R7	4.7 MFD 50WV Electrolytic	1	
C302	ECEA1HS010	1 MFD 50WV Electrolytic	1	
C303	ECEA1HS010	1 MFD 50WV Electrolytic	1	
C304	ECEA1HS2R2	2.2 MFD 50WV Electrolytic	1	
C305	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
C306	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C307	ECEA1HS4R7	0.47 MFD 50WV Electrolytic	1	
C308	YECQX1H183K	0.018 MFD 50WV ±10% Polyester	1	
C309	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C310	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
C311	YECQX1H222K	0.0022 MFD 50WV ±10% Polyester	1	
C312	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C313	YECQX1H473K	0.047 MFD 50WV ±10% Polyester	1	
C314	YECQX1H102K	0.001 MFD 50WV ±10% Polyester	1	
C315	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C316	YECQX1H223K	0.022 MFD 50WV ±10% Polyester	1	
C317	YECQX1H471KB	470 PF 50WV ±10% Ceramic	1	
C318	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C319	ECEA1HS4R7	4.7 MFD 50WV Electrolytic	1	
C320	YECCD1H101KM	100 PF 50WV ±10% Ceramic	1	
C323	YECQX1H222K	0.0022 MFD 50WV ±10% Polyester	1	
C324	ECEA1HS010	1 MFD 50WV Electrolytic	1	
C325	ECEA1HS010	1 MFD 50WV Electrolytic	1	
C326	ECEA1HS2R2	2.2 MFD 50WV Electrolytic	1	
C327	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
C328	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C329	ECEA1HS4R7	0.47 MFD 50WV Electrolytic	1	
C330	YECQX1H183K	0.018 MFD 50WV ±10% Polyester	1	
C331	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C332	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
C333	YECQX1H222K	0.0022 MFD 50WV ±10% Polyester	1	
C334	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C335	YECQX1H473K	0.047 MFD 50WV ±10% Polyester	1	
C336	YECQX1H102K	0.001 MFD 50WV ±10% Polyester	1	
C337	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C338	YECQX1H223K	0.022 MFD 50WV ±10% Polyester	1	
C339	YECQX1H471KB	470 PF 50WV ±10% Ceramic	1	
C340	YECCD1H150KM	15 PF 50WV ±10% Ceramic	1	
C341	ECEA1HS4R7	4.7 MFD 50WV Electrolytic	1	
C342	YECCD1H101KM	100 PF 50WV ±10% Ceramic	1	
C345	YECQX1H222K	0.0022 MFD 50WV ±10% Polyester	1	
C700	ECEA1CV102WX	1000 MFD 16WV Electrolytic	1	
C701	ECEA1CV102WX	1000 MFD 16WV Electrolytic	1	
C702	ECEA1AS471	470 MFD 10WV Electrolytic	1	
C703	ECEA1AS471	470 MFD 10WV Electrolytic	1	
C704	ECEA1CS100	10 MFD 16WV Electrolytic	1	
C705	ECEA1CS101	100 MFD 16WV Electrolytic	1	
CS701	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
CS702	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
CS703	YECCD12204M	0.2 MFD 12WV ±20% Ceramic	1	
CS704	ECQV05104JZ	0.1 MFD 50WV ±5% Polyester	1	
CS705	YECCD12204M	0.2 MFD 12WV ±20% Ceramic	1	
CS706	YECCD12204M	0.2 MFD 12WV ±20% Ceramic	1	
CS707	YECQX1H473K	0.047 MFD 50WV ±10% Polyester	1	

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